

C7 --The product prepared by the process according to the invention can be nucleated for higher crystallization temperature, stiffness and optical properties.--

IN THE CLAIMS:

Please cancel claims 18 and 19 without prejudice or disclaimer of the subject matter contained therein.

Please amend the claims as follows:

8. (Twice Amended) A process for preparing linear high melt strength propylene homopolymers and copolymers, comprising the steps of

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- subjecting propylene and optionally other olefins to polymerization in a plurality of polymerization reactors connected in series wherein said reactors are selected from the group consisting of loop reactors and gas phase reactors and wherein said reactors comprise at least one loop reactor and at least one gas phase reactor,
 - employing different amounts of hydrogen as a molar mass modifier in at least two of the reactors, and
 - carrying out the polymerization reaction in the presence of a catalyst system which catalyzes the formation of a high molar mass polymerization product having a MFR₂ of less than 0.1 g/10 min and a low or medium molar mass polymerization product having a MFR₂ of more than 0.5 g/10 min.

C9 9. (Amended) The process according to claim 8, wherein the polymerization reaction is carried out in the presence of a

catalyst system, which catalyzes the formation of a high molar mass polymerization product having an MFR2 of less than 0.04g/10 min and a low or medium molar mass polymerization product having a MFR2 of more than 0.5g/10min.

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10. (Amended) The process according to any one of claim 8 or 9, wherein the catalyst which catalyzes the formation of said high molar mass product and said low or medium molar mass product at a pressure of 25 to 80 bar and at a temperature of 60 to 100°C in a loop reactor.

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15. (Amended) The process according to claim 14, wherein the metallocene compound in the metallocene catalyst is bridged bis(2-R-4-R'-indenyl)M Cl₂, wherein both R and R' are aliphatic, cycloaliphatic or aromatic hydrocarbons having 1 to 18 C atoms, R' is typically phenyl or naphththyl, and R is a lower alkyl, M is a transition metal, and R and R' may contain heteroatoms, and the bridge between the indenyls comprises 1 to 3 atoms.

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27. (Twice Amended) The process according to claim 25, wherein an overhead stream obtained from the evaporation of volatile components is condensed, a concentrated fraction of propylene being recovered from the condensed stream and recirculated to the reactor.

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31. (Amended) The process according to claim 28, wherein an overhead stream or part of it is recirculated to the second reactor.

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32. (Amended) The process according to 8, wherein the second polymerization product is fed into a third reactor and propylene is subjected to a third polymerization reaction to produce a third polymerization product.

33. (Amended) The process according to claim 32, wherein the third polymerization reaction is carried out in a gas phase reactor in the presence of comonomers which give the third polymerization product properties of improved impact strength.

C13

39. (Twice Amended) The process according to claim 8, wherein the catalyst system has been prepared by

- providing a procatalyst by reacting a magnesium halide compound, selected from the group consisting of magnesium chloride, a complex of magnesium chloride with ethanol and other derivatives of magnesium chloride, with titanium tetrachloride and an internal donor,
- providing as a cocatalyst an organoaluminum compound selected from the group consisting of trialkyl aluminum, dialkyl aluminum and alkyl aluminum sesquichloride
- providing an external donor having the general formula $R'2(MeO)2Si$, wherein R' stands for a cyclic or branched aliphatic, or aromatic group, and, optionally,
- prepolymerizing a small amount of olefin by contacting the olefin with said procatalyst, cocatalyst and the external donor.

40. (Amended) The process according to claim 39, wherein the catalyst system has been transesterified with a phthalic acid ester - a lower alcohol pair, which transesterifies the catalyst at a temperature of 110 to 150°C.